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WHAT IS CLAIMED IS:

- 1. A diagnostic assay for detecting the presence of at least one biomarker indicative of intra-amniotic inflammation in a sample of amniotic fluid, comprising (A) mixing an adsorbent that binds at least one biomarker associated with intra-amniotic inflammation with a sample of amniotic fluid and then (B) monitoring said mixture for binding between said biomarker and said adsorbent, wherein said assay detects at least one biomarker that is a calgranulin.
- 2. A diagnostic assay as claimed in claim 1, wherein said adsorbent is an antibody immobilized on a solid substrate.
 - 3. A diagnostic assay as claimed in claim 2, which is an ELISA.
- 4. A diagnostic assay as claimed in claim 2, wherein said solid substrate is a probe.
- 5 A diagnostic assay as claimed in claim 4, wherein said biomarker is detected by laser desorption/ionization mass spectrometry.
- 5. A diagnostic assay as claimed in claim 1, wherein said adsorbent is immobilized on a probe.
- 6. A diagnostic assay as claimed in claim 5, wherein said adsorbent is a hydrophobic adsorbent.
- 7. A diagnostic assay as claimed in claim 6, wherein said probe is a Ciphergen H4 probe or H50 probe.

- 8. A diagnostic assay as claimed in claim 1, which additionally tests for the presence of at least one defensin in said sample of amniotic fluid.
- 9. A diagnostic assay as claimed in claim 8, wherein said defensin is HNP-1 (alpha-defensin 1).
- 10. A diagnostic assay as claimed in claim 3, which additionally tests for the presence of at least defensin in said sample of amniotic fluid.
- 11. A diagnostic assay as claimed in claim 10, wherein said defensin is HNP-1 (alpha-defensin 1).
- 12. A diagnostic assay as claimed in claim 5, which additionally tests for the presence of at least defensin in said sample of amniotic fluid.
- 13. A diagnostic assay as claimed in claim 12, wherein said defensin is HNP-1 (alpha-defensin 1).
- 14. A diagnostic assay as claimed in claim 1, wherein said calgranulin is calgranulin A.
- 15. A diagnostic assay as claimed in claim 1, wherein said calgranulin is calgranulin C.
- 16. A kit for detecting the presence of at least one biomarker indicative of intra-amniotic inflammation in a sample of amniotic fluid, comprising:

at least one adsorbent that binds at least one biomarker associated with intra-amniotic inflammation; and

instructions for mixing said adsorbent with a sample of amniotic fluid and monitoring said mixture for binding between said adsorbent and a biomarker in said sample,

wherein said kit includes at least one adsorbent that detects a calgranulin.

- 17. A kit as claimed in claim 16, wherein said adsorbent is an antibody is immobilized on a solid substrate.
- 18. A kit as claimed in claim 17, which additionally comprises an enzyme-antibody conjugate used to detect biomarker immobilized on said solid substrate.
- 19. A kit as claimed in claim 16, wherein said solid substrate is a probe.
- 20. A kit as claimed in claim 19, wherein said kit instructions specify analysis by laser desorption/ionization mass spectrometry.
- 21. A kit as claimed in claim 17, wherein said solid substrate is a probe.
- 22. A kit as claimed in claim 21, wherein said adsorbent is a hydrophobic adsorbent.
- 23. A kit as claimed in claim 22, wherein said probe is a Ciphergen H4 probe or H50 probe.

- 24. A kit as claimed in claim 16, additionally comprising at least one adsorbent that binds to at least one defensin.
- 25. A kit as claimed in claim 24, wherein said defensin is HNP-1 (alpha-defensin 1).
- 26. A kit as claimed in claim 18, which additionally comprising at least one adsorbent that binds to at least one defensin.
 - 27. A kit as claimed in claim 26, wherein said defensin is HNP-1.
- 28. A kit as claimed in claim 20, which additionally comprising at least one adsorbent that binds to a defensin.
- 29. A kit as claimed in claim 28, wherein said defensin is HNP-1 (alpha-defensin 1).
- 30. A kit as claimed in claim 16, wherein said calgranulin is calgranulin A.
- 31. A kit as claimed in claim 16, wherein said calgranulin is calgranulin C.
- 32. A method for qualifying the risk of preterm delivery in a pregnant patient, comprised of analyzing a sample of amniotic fluid from said patient for a level of at least one calgranulin.

33. A method according to claim 32, additionally comprising analyzing said sample for the level of at least one defensin.

- 32. A method according to claim 32, wherein said calgranulin is calgranulin A or calgranulin C.
- 33. A method according to claim 31, wherein said defensin is HNP-1 (alpha-defensin 1) or HNP-2 (alpha-defensin 2).
- 34. A method according to claim 32, wherein said defensin is HNP-1 (alpha-defensin 1) or HNP-2 (alpha-defensin 2).
- 35. A method according to claim 34, wherein said defensin is HNP-1 (alpha-defensin 1).
- 36. A method for qualifying the risk of preterm delivery in a pregnant patient, comprising
- (A) providing a spectrum generated by subjecting a sample of amniotic fluid from said patient to mass spectroscopic analysis that includes profiling on a biologically- or chemically-derivatized affinity surface

and

- (B) putting said spectrum through pattern-recognition analysis that is keyed to at least one peak indicative of the presence of a calgranulin in said sample.
- 37. A method according to claim 36, wherein said patternrecognition analysis additionally is keyed to at least one peak indicative of a defensin.

38. A method according to claim 36, wherein said calgranulin is calgranulin A or calgranulin C.

- 39. A method according to claim 37, wherein said defensin is HNP-1 (alpha-defensin 1) or HNP-2 (alpha-defensin 2).
- 40. A method according to claim 39, wherein said defensin is HNP-1 (apha-defensin 1).
- 41. A method according to claim 39, wherein said calgranulin is calgranulin A or calgranulin C.
- 42. A method according to claim 40, wherein said calgranulin is calgranulin A or calgranulin C.
- 43. A method according to claim 36, wherein said chemicallyderivatized affinity surface is a Ciphergen H4 probe or H50 probe.
- 44. A method according to claim 36, wherein said patient does not have a white blood cell count that is elevated out of the normal range.